

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

CONSTRUCTION SPECIFICATION

CS-71: "Roof Gutters and Downspouts"

71.1 SCOPE

The work shall consist of furnishing and installation of roof gutters and downspouts on existing buildings as shown on the drawings.

71.2 MATERIAL

Roof gutters and downspouts may be made of aluminum or galvanized steel. Aluminum gutters shall have a minimum nominal thickness of 0.027 inches. Aluminum downspouts shall have a minimum nominal thickness of 0.020 inches. Galvanized steel gutters and downspouts shall be at least 28 gage. Dissimilar metals shall not be in contact with each other.

Downspouts may also be made of plastic pipe. Plastic downspouts shall be Schedule 40 PVC, ASTM D-1785, and painted if exposed to direct sunlight.

No used materials shall be installed in this project.

71.3 SUPPORTS

Gutters shall be supported at a maximum spacing of 48 inches for galvanized steel or 32 inches for aluminum.

Gutters supported by spikes and ferrules shall be installed only where the existing rafters and fascia boards are sound and free from rotten wood.

Unsound fascia boards shall be replaced. If unsound wood exists in existing rafters, gussets made from new lumber may be attached to the existing rafters for supporting new fascia boards and the gutters.

Gutters shall be attached by means of hangers if sufficient backing is not available for the use of spikes and ferrules.

Downspouts shall be securely fastened at the top and bottom with intermediate supports that are a maximum of 10 feet apart.

71.4 INSTALLATION

Gutters shall be installed with the minimum fall specified on the drawings. If the minimum fall is not specified on the drawings, gutters shall be installed with sufficient slope so they drain to the downspouts.

Gutters shall have the minimum cross section dimensions as shown on the drawings.

The opening in the gutter into the downspout shall equal the minimum downspout size shown on the drawings.

Where applicable, the connection between the downspouts and underground outlets will prevent contaminated surface water from entering outlet.

71.5 PROTECTION

Gutters and downspouts shall be installed so that they are protected from damage by livestock and equipment.